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# **Tenure Patterns of U.S. Commissioned Officers in the 1970s and 1980s**

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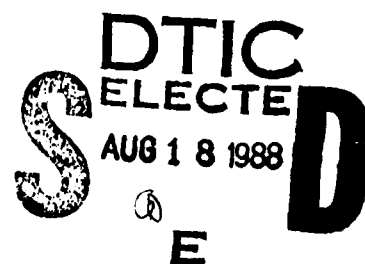


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as of FY86? The results suggest several key issues pertinent to officer training and to the development of measures and procedures to assess officer development.

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Tenure Patterns of U.S. Army Commissioned Officers in the 1970s  
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## Tenure Patterns of U.S. Army Commissioned Officers in the 1970s and 1980s

This report presents analyses of U.S. Army officer data conducted for two purposes. 1) To generate information on the tenure patterns of Army officers with reference to different social/historical contexts and basic demographic factors. The aspects of officer tenure examined include length of active duty, ranks achieved, and reasons for separating from active duty. The resulting set of empirical information on typical officer tenure patterns will, in turn, aid in identifying salient points in the officer development process and developing indices of officer development. 2) To test the operational utility of Army Research Institute (ARI) Officer Longitudinal Research Data Base (OLRDB).

### BACKGROUND

#### Need for Officer Professional Development Research

Professional training and performance effectiveness of the U.S. Army officer corps are viewed as mission-critical issues by the Army policy makers. The series of large-scale studies undertaken in the last decade, under the directives from the Chief of Staff of the Army, demonstrates the importance ascribed to officer professional development for the overall Army mission.

A Review of Education and Training for Officers (RETO), conducted in 1977-1978, resulted in an integrated design for the officer educational system (Department of the Army, 1978). The design encompassed the entire officer career from precommissioning training to executive development. In 1983, the Officer Personnel Management System (OPMS) was reviewed to assess the efficiency of the system in maintaining a highly professional officer corps and in meeting the individual officers' needs as well as the officer manpower requirements (U.S. Army, 1984). While the OPMS study focused on the officer manpower resources and management strategies, the Professional Development of Officers Study (PDOS), initiated in 1984, examined the efficacy of the officer educational and training system recommended by the RETO study and produced further recommendations for refinement (Department of the Army, 1985). In 1985-1986, Reserve Officers' Training Corps (ROTC) Study Group also developed recommendations to improve the fit between the ROTC training programs (producing the largest proportion of commissioned officers) and overall Army needs for officer personnel, both qualitative and quantitative.

The most recent effort was the Leader Development Study in 1987, directed by the Commander of the Training and Doctrine

Command. The study identified the following processes that are integral to leader development system: Selection, education, training, experience, evaluation, feedback, remediation, and assessment (Leader Development Study, 1987). A primary recommendation of this study was to establish clearly-defined tasks, conditions, and standards for leader development, based on the assumption that leader development builds on "school-house" education and on-the-job training and experiences, in multiple settings and conditions.

The Army's commitment to refine and optimize the officer professional development system has led to significant revisions in the Officer Personnel Management System and pre- and post-commissioning educational programs. However, a great deal of research is still needed to continue the enhancement of officer professional development. Systematic and comprehensive analysis of officer task requirements and methodologies to assess and to provide developmental feedback on leadership task performance are areas of current research.

Another area of research need is a systematic examination of the factors assumed to contribute to leader development and performance. These may include such factors as civilian and military educational achievement and performance, military training performance, and job assignment history. ARI's Leader Development Analysis Project (LDAP) is designed to address this issue.

Conducting LDAP will involve several, evolving analytic steps: description of the officer corps and its changes over time, identification and construction of professional development measures based on officer career history and training performance records, and delineation of relationships among professional development inputs and outcome measures.

One of the initial steps is to map out the overall tenure patterns of Army officers with reference to demographic subgroups and cohorts entering active duty in different social/historical times. Such descriptions would contribute in two ways to the subsequent analysis of the relationships among officer development factors and outcomes. First, if the "typical" tenure patterns of Army officers differ markedly depending on demographic factors and/or time of entering active duty, then a general model of leader development process would need to account for these sources of variation. Second, descriptions of tenure patterns by subgroups may highlight some key career events, common across subgroups, which may serve as indices of professional development (e.g., promotion to captain far ahead of peers). Such indices, when validated empirically, may be useful in future officer development management as indirect indicators of officer performance.



### Selection of Subgroup Factors

Tenure patterns of three cohorts were examined and compared: the early-70s group, the mid-70s group, and the early-80s group. These groups were represented by officers starting their current, or most recent, active duty service in 1971, 1976, and 1980, respectively.

During the period of 1970 to 1986, major societal and organizational changes occurred that may have affected the career development and utilization of U.S. Army officers. For example, officers who have now served 16-18 years in the commissioned officer corps began their service in the last period of the Vietnam conflict. These officers not only experienced a war-time Army but also remained, and were retained, in active duty through a period of major forces reduction during the 70s. They may represent a group characterized by high levels of commitment, job satisfaction, and/or job performance.

The ending of the Vietnam War and the beginning of the all-volunteer force may have introduced a significant shift in the characteristics of the population accessed into the commissioned officer corps. The post-Vietnam-War officers, currently with 10 to 12 years active duty history, entered service when this society held a considerable skepticism, even a strong disapproval, of military activities in general. In addition, during that period, the ending of conscription eliminated the motivation to become an Army officer in order to avoid the draft. The reasons for joining the officer corps for the mid-70s commission group may have differed significantly from those of the Vietnam-War group.

On the other hand, for the group of officers entering active duty in the 80s, military service may have become one of several occupational possibilities (cf. Moskos, 1986). Without a strong societal pressure either to seek or avoid military officer career, a choice to join and remain on active duty for current junior officers may be based largely on the probabilities for financial rewards, security, and general life career plan.

For these three cohort groups, the reasons for joining the Army, staying in active duty, and separating from active duty may have involved quite different realities. Comparisons among the tenure patterns of these three groups were designed to assess the degree of similarity and differences in tenure patterns of Army officers entering active duty under different social, political, and organizational circumstances.

In addition, similarities and differences of tenure patterns across social subgroups, e.g., gender and race, were assessed. These demographic factors are of concern to policy makers involved in officer manpower management and training. Marked

changes have been observed in the demographic composition of the youth population considering military service in their occupational plans, with the proportions of women and minority groups increassing. From the organizational point of view, such changes raise numerous questions concerning how to maximize the utility of these subgroups that may present different sets of strengths and needs compared to the traditional, white-male officer corps.

Lastly, as the technological expertise required of Army officers increases, career opportunities in the civilian sector may become highly attractive for many officers. The rate of separating from active duty service to civilian occupations may be much greater in some branches than in others, depending on the nature of technical skills involved in the branch-related jobs.

Although the aim of the analyses for this report is to describe the tenure pattern of Army officers in general, the possibilities for cohort and other demographic group differences in this pattern needs to be anticipated.

#### ANALYSIS QUESTIONS

The following questions were addressed in data analyses:

1. What were the characteristics of the entry-year groups at the time of entry into active duty in terms of source of commission, initial obligated tour, branch assignment, sex, and race? How did the entry-year groups differ in terms of these characteristics?
2. As of FY86, what were the tenure patterns of the 1971, 1976, and 1980 entry-year groups during their career history?
  - a) What are the group separation histories?
  - b) What proportion of officers remained, and were retained, in active duty beyond the initial obligated tours?
  - c) Did the rate of separation vary across branches, source of commission, sex, and race?
  - d) What were the reasons for leaving active duty service?
  - e) At what ranks, did separation from active duty occur?
  - f) For the groups remaining on active duty as of FY86, what are the rank distributions?

#### METHOD

##### Construct Working Data Sets

The Officer Longitudinal Research Data Base (OLRDB) was used for the analyses reported in this report. This data base has been developed by ARI to support research in the areas of officer

training and utilization which involve longitudinal tracking of relevant information. It contains data on active duty officers from the Officer Master File (OMF), maintained by the U.S. Army Military Personnel Center (MILPERCEN); precommissioning training data from ROTC, U.S. Military Academy (USMA), and Officer Candidate School (OCS); and performance data from the Officer Basic and Advanced Courses (Hunter, Rachford, Kelly, & Duncan, 1987). Data from the source agencies are collected on an yearly basis, "cleaned up," and integrated into the OLRDB.

The following data elements, pertinent to the analyses in this report, were extracted from the OMF portion of the OLRDB:

- a) Year of entry on active duty in current tour.
- b) Source of commission.
- c) Basic branch.
- d) Sex.
- e) Race.
- f) Procurement code.
- g) Separation date.
- h) Reason for separation.
- i) Rank, current, or at separation.

At the time of the analyses, the OLRDB had been updated to include the OMF data through FY86. Thus, all results reported in this report are as of FY86. The OLRDB data for fiscal years 1970 to 1979 were obtained from the Defense Manpower Data Center, which maintains a few, basic personnel information on U.S. military service personnel. Thus, for the 1971 entry-year group, many of the items listed above were not available.

A working data set was constructed, containing the cases whose "year of entry on active duty" was 1971, 1976, or 1980. In addition, the cases with 1985 as the "year of entry" were added. Data from this group were used to compare the characteristics of a recent entry-year group, at the time of entry, with those of groups beginning active duty 14, 9, and 5 years earlier.

Extracting data from the OLRDB resulted in the following number of cases: 13,364 for 1971; 7,695 for 1976; 8,254 for 1981; and 8,636 for 1985. These figures were compared with officer accession information obtained from MILPERCEN (R. Stevens, MILPERCEN, personal communication, February, 1988). The MILPERCEN figures were slightly, but consistently, greater than those calculated from the OLRDB. This discrepancy seems reasonably explained (R. Stevens, MILPERCEN, personal communication, February, 1988) by differences in data base construction and management. Record counts in MILPERCEN files, at a given time, includes officers who have been assigned to enter active duty but, for various reasons, never actually do. Records for such cases would contain little substantive data,

that is, have much missing data. MILPERCEN deletes these records later. In contrast, such records with mostly missing data elements are excluded from the OLRDB. This procedure would tend to reduce the sizes of entry-year groups in the OLRDB, compared to the MILPERCEN files.

#### Recode Original Data

OLRDB data are coded into categories useful for the management purposes of the agencies (e.g., MILPERCEN) originally assembling the data. These data categories tend to be extremely detailed and need to be "collapsed" for research use. This process involves identifying the meaning of every original code for a data element and developing a higher-order grouping scheme relevant to research issues.

Some of the variables used for the analyses reported below were recoded extensively. For example, 144 original codes for "reasons for separation" were recoded into 6 groups. There were 48 procurement codes which indicate the source of commission and length of active duty obligation; they were recoded into 12 categories. Less extensive recoding were performed for source of commission, race, and basic branch. The SAS program for recoding and labeling the new categories is included at Appendix A.

### RESULTS

The results of frequency analyses -- numbers and/or percentages of officers found in various categories examined -- are presented below. In all of the tables, the percentage column may not total 100% due to rounding. In some of the tables, the percentages of cases with missing data are included to provide information regarding the completeness of these data in the OLRDB.

#### Characteristics of the Entry-Year Groups

Sources of commission. Table 1 presents the sources of commission for the 1971, 1976, 1980, and 1985 entry-year groups. The proportion of the USMA graduates in the 1971 group (5%) was much lower than in the subsequent years, probably due to the much larger accession of active duty officers through direct appointments to meet war-time requirements. In the post-Vietnam period, USMA graduates constituted slightly over 10% of entry groups, and the actual number has been increasing. Throughout the period examined, ROTC has provided the majority of yearly accessions, at least one-half of officers entering active duty. The proportion of officers commissioned through the Officer Candidate School remained fairly consistent around 10%.

Table 1

Sources of Commission by Entry-Year Groups

Source of Commission	<u>1971 Group</u> % (Number)	<u>1976 Group</u> % (Number)	<u>1980 Group</u> % (Number)	<u>1985 Group</u> % (Number)
USMA	5 ( 659)	11 ( 808)	11 ( 908)	13 (1088)
ROTC	51 ( 6837)	51 (3941)	54 (4494)	55 (4744)
OCS	7 ( 981)	8 ( 583)	12 ( 959)	8 ( 686)
Direct Appt.	32 ( 4334)	9 ( 689)	9 ( 740)	15 (1256)
Other	4 ( 552)	22 (1661)	14 (1124)	5 ( 421)
Missing Data	<1 ( 1)	<1 ( 13)	<1 ( 29)	5 ( 441)
Total	100 (13364)	101 (7695)	100 (8254)	101 (8636)

Direct Appointment is the process by which persons with training in civilian professional fields (e.g., medicine, law, and ministry) are commissioned as Army officers. The Other commission-source group includes officers commissioned through non-Army service academies, the Aviation Training Program, and sources coded as "other" by MILPERCEN. Together, they total to a sizable portion of each entry-year group, representing those officers who are not new college graduates with Army precommissioning training background. The percentages of officers commissioned through Direct Appointment and Other sources have fluctuated since the early 70s. However, the combined proportion may be decreasing during the peacetime period (from 36% in 1971 to 20% in 1985).

Basic branch information was available in the OLRDB only for those 1971 accessions remaining in active duty beyond 1979. However, in the 1976, 1980, and 1985 groups, about 75% of officers commissioned through Direct Appointment or Other were assigned to the medical branches (not shown in tables). Thus, the high proportion of officers entering active duty through Direct Appointment (32%) in the late Vietnam-War period probably reflected a greater need for health professionals in the war-time environment. Effective training of civilian professionals as commissioned officers, especially in times of military crises, may present a special challenge for officer development programs.

Initial obligations. Table 2 presents the distributions of the entry-year groups by initial obligations and commission source. This information was derived by grouping the OMF "procurement codes" into Regular Army or Non-Regular Army, sources of commission, and, finally, "the years of obligation" for the Non-Regular-Army group.

Table 2

Initial Obligations of Entry-Year Groups by Commission Source

Initial Obligation/ Commission Source	<u>1976 Group</u> % (Number)	<u>1980 Group</u> % (Number)	<u>1985 Group</u> % (Number)
Regular Army (RA)			
USMA	9 ( 689)	9 ( 756)	10 ( 855)
ROTC	8 ( 589)	13 (1102)	16 (1420)
OCS	--	<1 ( 1)	--
Non RA, 4 Years			
ROTC	14 (1065)	7 ( 545)	11 (1003)
Non RA, 3 Years			
ROTC	23 (1754)	26 (2129)	21 (1832)
OCS	<1 ( 4)	9 ( 713)	8 ( 676)
Non RA, 2 Years			
OCS	6 ( 471)	<1 ( 24)	<1 ( 5)
Other	29 (2272)	25 (2060)	20 (1763)
Missing data	11 ( 851)	11 ( 924)	13 (1082)
Total	101 (7695)	101 (8254)	100 (8636)

The procurement codes pertaining to the Regular Army do not indicate the length of initial obligation. However, this information may be approximated by examining the sources of commission for the Regular Army group. Officers commissioned into the Regular Army from USMA have 5-year initial obligated tours. The obligated tour length is 4 years for ROTC scholarship graduates and 3 years for ROTC non-scholarship graduates (Department of the Army, 1985). Assignment into the Regular Army from OCS is rare. The obligated tour lengths of Direct Appointment officers (Regular Army or Non Regular Army) vary greatly, depending on factors such as the educational support provided by the Army.

About 10% of entry-year groups from 1976, 1980, and 1985 were graduates from USMA, all in the Regular Army, presumably with 5-year obligated tour. The proportion of ROTC graduates

assigned into the Regular Army has doubled since mid-70s, from 8% in 1976 to 16% in 1985. They were obligated to serve for 4 or 3 years. This increase is also reflected in the rise of the Regular Army portion of the three entry-year groups from 17% in 1976 to 26% in 1985.

Of the officers with the initial obligation information available (i.e., excluding the Other and the Missing categories), the ROTC graduates with 3-year tours in the Non-Regular Army constituted the largest majority of recent entry-year groups (around 20-25%), followed by ROTC graduates in the Regular Army. Most of the OCS graduates have 2- or 3-year obligation. The "Other" group largely corresponds to officers from Direct Appointment or Other sources of commission representing a wide range of initial tour arrangements.

Branch assignment. Table 3 presents the distribution of the 1976, 1980, and 1985 entry-year groups as of FY86 across basic branches (the branch information is not available for the 1971 group, except for those officers who remained in active duty untill 1979 or later). For many officers, these represent the branches to which they were originally commissioned, although for some they represent the branches to which they were transferred. In addition, the branches were grouped into Combat Arms, Combat Support, and Combat Service Support categories based on The Army Officer's Guide (Crocker, 1985). The "Medical" category is composed of officers in the Dental Corps, Medical Corps, Medical Service Corps, Army Medical Specialist Corps, and Veterinary Corps.

The branches in the Combat Arms category tend to be larger than the rest, except for Medical and Army Nurse Corps in the Combat Service Support category. In the Combat Support category, Military Intelligence and Signal Corps contain about double the number of officers as Chemical and Military Police branches.

Table 3

Basic Branches of Entry-Year Groups as of FY86

Basic Branch	<u>1976 Group</u> % (Number)	<u>1980 Group</u> % (Number)	<u>1985 Group</u> % (Number)
<u>Combat Arms</u>			
Air Defense Art.	4 ( 302)	4 ( 331)	5 ( 422)
Armor	7 ( 570)	6 ( 492)	8 ( 657)
Aviation	4 ( 273)	7 ( 548)	6 ( 482)
Engineer	5 ( 418)	6 ( 473)	5 ( 468)
Field Artillery	9 ( 652)	10 ( 831)	11 ( 963)
Infantry	11 ( 855)	11 ( 944)	14 (1243)
<u>Combat Support</u>			
Chemical	1 ( 94)	2 ( 139)	3 ( 259)
Military Intell.	4 ( 333)	5 ( 433)	4 ( 346)
Military Police	2 ( 185)	3 ( 215)	2 ( 180)
Signal	5 ( 408)	6 ( 521)	5 ( 467)
<u>Combat Service Support</u>			
Adjutant General	4 ( 302)	5 ( 369)	2 ( 197)
Army Nurse Corps	7 ( 504)	5 ( 382)	7 ( 588)
Chaplain	2 ( 122)	1 ( 86)	2 ( 133)
Finance	2 ( 127)	1 ( 109)	1 ( 44)
Judge Advocate	2 ( 179)	3 ( 225)	2 ( 203)
Medical	21 (1576)	17 (1359)	14 (1186)
Ordnance	3 ( 239)	4 ( 347)	5 ( 428)
Quartermaster	3 ( 189)	4 ( 299)	2 ( 203)
Transportation	2 ( 180)	2 ( 146)	2 ( 167)
Other	1 ( 72)		
Missing data	2 ( 115)	<1 ( 5)	0 ( 0)
Total	100 (7695)	100 (8254)	100 (8636)



Table 4 shows the percentages of officers in branches, summarized by the branch groupings. These figures indicate that the proportion of officers in the Combat Arms category was greater for the 1985 entry-year group (49%) than for the 1976 entry-year group (41%). While the complementary decrease occurred in the Combat Service Support group as a whole, the relative proportion of the Combat Support group remained fairly consistent at about 15%.

Table 4

Basic Branch Groups of Entry-Year Groups as of FY86

Basic Branch Groups	<u>1976 Group</u> % (Number)	<u>1980 Group</u> % (Number)	<u>1985 Group</u> % (Number)
Combat Arms	41 (3070)	44 (3619)	49 (4235)
Combat Support	13 (1020)	16 (1308)	15 (1252)
Combat Serv. Supp.	45 (3418)	40 (3322)	36 (3149)
Other	1 ( 72)	0 ( 0)	0 ( 0)
Total	100 (7580)	100 (8249)	100 (8636)

Note: The basic branch information was missing for 115 and 5 officers in the 1976 and 1980 groups, respectively. The 1976 and 1980 percentages are based on subtotals excluding these cases. There were no missing data for the 1985 group.

By 1985, officers assigned to the Combat Arms and Combat Support branches constituted almost two-thirds (64%) of the entire entry-year group. Part of the increase in officers assigned to the Combat Arms branches may be to replace the Vietnam-era officers who separated from these branches, either with new accessions or by cross-branch transfers. On the other hand, if similar replacement for separation occurs in all branches, then the changes in the relative size of the Combat Arms branches may represent a gradual strengthening of the officer resources allocated for these branches.

Demographic composition of the entry-year groups. Tables 5 and 6 present the breakdown of the entry-year groups by sex and racial/ethnic categories, respectively. The proportions of women officers in the entry-year groups have increased steadily -- from 8% for the 1971 group to 18% for the 1985 group. Even during the post-Vietnam period, with markedly reduced numbers of yearly entries into active duty, the percentage of women seems to be still rising.

Table 5

Sex Composition of Entry-Year Groups

Sex	<u>1971 Group</u> % (Number)	<u>1976 Group</u> % (Number)	<u>1980 Group</u> % (Number)	<u>1985 Group</u> % (Number)
Female	8 ( 1082)	14 (1111)	17 (1419)	18 (1533)
Male	92 (12281)	86 (6584)	83 (6835)	82 (7103)
Unknown	<1 (    1)	0 (    0)	0 (    0)	0 (    0)
Total	100 (13364)	100 (7695)	100 (8254)	100 (8636)

Note: There was no missing data for sex.

The racial/ethnic compositions of entry-year groups have also changed during this period. The greatest change has been in the increase of black officers from 2% in the 1971 group to well above 10% in the 80s. A complementary decrease occurred mainly in the White and the Other groups. (The Other group includes the original OMF categories of American Indian, Alaskan Native, Asian, Pacific Islander, Other, or Unknown.) On the other hand, the Hispanic proportion has remained stable and low during the period examined. According to these data, the recent increases in the proportion of "minority" officers is largely attributable to the growing number of black accessions.

Table 6

Racial Composition of Entry-Year Groups

<u>Racial/ Ethnic Group</u>	<u>1971 Group % (Number)</u>	<u>1976 Group % (Number)</u>	<u>1980 Group % (Number)</u>	<u>1985 Group % (Number)</u>
White	87 (11639)	73 (5593)	80 (6606)	84 (7234)
Black	2 ( 323)	8 ( 601)	15 (1226)	12 (1004)
Hispanic	1 ( 116)	1 ( 94)	2 ( 138)	1 ( 103)
Other	7 ( 890)	2 ( 180)	3 ( 284)	3 ( 295)
Missing data	3 ( 396)	16 (1227)	0 ( 0)	0 ( 0)
Total	100 (13364)	100 (7695)	100 (8254)	100 (8636)

Tenure patterns of the 1971, 1976, and 1981 entry-year groups

The tenure patterns of the three entry-year groups were examined in terms of 1) the proportion of each group still remaining in active duty in FY86 and 2), for those no longer in active duty, the lengths of service before their separation. For the "separated" cases, the length of service was categorized into four levels. The first two levels (1-3 years, 4-6 years) correspond roughly to the lengths of initial obligated tours. The 7-10-year level is often viewed as a critical decision point in officer careers. At this point, the probability of promotion to the rank of major presents a significant influence in decisions to consider careers outside the Army. The fourth separation level contains officers who separated from active duty after 11-15 years service. This level applies only to the 1971 entry-year group.

Table 7

Tenure Lengths of Entry-Year Groups

Tenure Status As Of FY86	<u>1971 Group</u> % (Number)	<u>1976 Group</u> % (Number)	<u>1980 Group</u> % (Number)
Continue in Active Duty	17 ( 2262)	43 ( 3272)	62 ( 5081)
Separate After 1-3 Years	58 ( 7755)	28 ( 2128)	16 ( 1344)
Separate After 4-6 Years	16 ( 2190)	22 ( 1657)	22 ( 1800)
Separate After 7-10 Years	6 ( 741)	8 ( 625)	--
Separate After 11-15 Years	3 ( 415)	--	--
Total	100 (13363)	101 ( 7682)	101 ( 8225)

Note: There were 1, 13, and 29 cases with missing data in the 1971, 1976, and 1980 year groups, respectively. The percentages were calculated excluding these cases.

The overall tenure patterns of the three entry-year groups are shown in Table 7. Seventeen percent of the 1971 group remained in active duty through FY86. Because this group was much larger initially than the subsequent groups examined, 17% represents still a sizable number of officers (2262) remaining in the active force. Changes in the separation rate across year groups seem to reflect the different political/organizational climates experienced by these groups. Even though the 1971 group began with over 13,000 officers, over half separated in the first 3 years, coinciding with the transition to a peace-time Army and the rapid reduction of forces proceeding. The separation rates for the first 3 years have declined in the subsequent groups to 16% for the 1980 group. Combining the separation rates for the 1-3- and 4-6-year levels suggests that relatively fewer officers are leaving active duty at the expiration of the obligated tours in the recent years. The rates declined from 74% to 50% to 38% for the 1971, 1976, and 1980 groups. Officers entering service in the recent years seem to be remaining in active duty longer than their counterparts did during the 70s.

It should be noted that continuing in active duty beyond obligated service does not simply reflect individual officers' willingness or desire to serve. There are officers whose requests for active duty extension are not approved. The

proportions of separations presented in this report would include those who intended to leave active duty and those who wished to remain but were not retained.

Another point to note in the tables with tenure lengths deals with the proportions of entry-year groups continuing in active duty. The percentages of officers remaining in active duty should not be compared across entry-year groups due to the differences in time since entry. On the other hand, the percentages in the 1-3- and 4-6-year tenure lengths are comparable across entry-year groups. They indicate the proportions leaving active duty within these time ranges from any entry year.

Tenure lengths by initial obligation. Table 8 shows the tenure patterns of the 1976 and 1980 entry-year groups with reference to the initial obligation. The top portion of the table shows the tenure history of the 1976 group. Fifty-nine percent of the original 1976 group initially assigned to Regular Army were still in active duty as of FY86, while 41% of this group had separated from active duty by FY86. Although 55% of the original group with 4-year obligated tours had separated by FY86, 45% of this group were still in active duty 10 years after the entry date. Likewise, 44% of the original group with 3-year obligations remained in active duty after 10 years active duty service.

Table 8

Percentages of 1976 and 1980 Entry-Year Groups by Tenure Lengths and Initial Obligation

Tenure Status As Of FY86	Initial Obligation				
	Reg Army	4-Years	3-Years	2-Years	Other
<u>1976 Entry-Year Group</u>					
In Active Duty	59	45	44	58	29
Separate After 1-3 Years	5	4	36	28	42
Separate After 4-6 Years	28	43	12	8	18
Separate After 7-10 Years	8	7	7	5	10
Total %	100	99	99	99	99
Num. Officers	1278	1065	1758	471	2272
<u>1980 Entry-Year Group</u>					
In Active Duty	70	45	60	71	62
Separate After 1-3 Years	4	8	23	13	21
Separate After 4-6 Years	26	47	17	17	17
Total %	100	100	100	101	100
Num. Officers	1859	545	2842	24	2060

Note: There were 851 and 924 cases with missing data for the 1976 and 1980 groups, respectively; they were excluded in calculating the percentages.

The bottom portion of Table 8 displays comparable data for the 1980 group. Although their group tenure as of FY86 (6 years) is barely longer than the initial obligation for many officers, there is a strong indication that recent entry groups are remaining in service well beyond their initial tour. Much more than half of the original 1980 group with 3-year obligations remained in active duty after 6 years service (60% vs 40%). There may be a greater variation in the length of active service for recently accessioned officers with 4- or 3-year initial obligation than was the case for officers accessioned in the early 70s.

Tenure lengths by source of commission. Table 9 shows the tenure patterns of the entry-year groups by source of commission. For the 1971 group (top portion of the table), the highest retention rates (38%) were found among officers commissioned from USMA and Other sources. Although the rate for ROTC graduates is 21%, in terms of absolute numbers, they constitute the largest block of officers (n=1,435) continuing in active duty after 16 years service. It should be noted that, for this year group, ROTC graduates constituted a much larger subgroup compared to officers from other sources of commission. Although Direct Appointment was the second largest commissioning source for this year group, 94% commissioned by Direct Appointment had separated within the first 6 years of service.

Table 9

Percentages of 1971, 1976, and 1980 Entry-Year Groups by Tenure Lengths and Source of Commission

Tenure Status As Of FY86	USMA	ROTC	OCS	DIR/APPT	OTHER
<u>1971 Entry-Year Group</u>					
In Active Duty	38	21	26	3	38
Separate After 1-3 Years	2	54	56	79	9
Separate After 4-6 Years	42	16	7	15	13
Separate After 7-10 Years	13	5	5	2	28
Separate After 11-15 Years	5	3	6	1	13
Total %	100	99	100	100	101
Num. Officer	659	6837	981	4334	552
<u>1976 Entry-Year Group</u>					
In Active Duty	59	46	59	38	23
Separate After 1-3 Years	2	23	27	37	48
Separate After 4-6 Years	31	24	8	15	19
Separate After 7-10 Years	8	7	6	10	10
Total %	100	100	100	100	100
Num. Officer	808	3941	583	689	1661
<u>1980 Entry-Year Group</u>					
In Active Duty	67	60	74	58	57
Separate After 1-3 Years	2	16	15	25	24
Separate After 4-6 Years	31	24	11	17	19
Total %	100	100	100	100	100
Num. Officer	908	4494	959	740	1124

Note: Source of commission was missing for 1, 13, and 29 cases for the 1971, 1976, and 1980 groups, respectively; above percentages are based on subtotals excluding these cases.



The middle portion of Table 9 shows that one-half or more of graduates from USMA, ROTC, and OCS stayed in active duty well beyond their initial obligations (maximum 5 years). This is especially striking for the OCS and the 3-year ROTC graduates who, together, constituted 30% of the total original group (see Table 2, Column 1).

By summing the percentages for the 1-3- and 4-6-year separations, the separation rates during the first 6 years may be compared between the 1976 and 1980 year groups, by commissioning source. For all sources of commission, except USMA, the 6-year separation rates are markedly lower for the 1980 group than those of the 1976 group. The 6-year separation rates for USMA graduates remained at 33%, the lowest relative to officers from other commissioning sources. Since ROTC supplied the largest portion of the original entry groups, its graduates also constituted the largest part of the officers remaining in active duty for each entry-year group.

Tenure lengths by basic branch groups. Table 10 shows percentages of officers in Combat Arms, Combat Support, and Combat Service Support branch groups by tenure lengths. The percentages were calculated for each column, based on branch group and entry year. The percentage of officers in each branch group separating in the first 6 years was much lower for the 1980 group than the 1976 group. For the 1976 group, the separation rate for Combat Service Support was much higher than for Combat Arms and Combat Support groups. The separation rates among the three branch groups became closer for the 1980 entry-year group, even though the rates were still ordered from the lowest in Combat Arms (35%) to the highest in Combat Service Support (42%).

The most notable change between the entry groups of the mid-70s and early-80s was found for the Combat Service Support branches. The 3-year separation rate for the 1980 group was 15% lower than the comparable rate for the 1976 group (20% vs 35%).

Table 10

Tenure Lengths of 1976 and 1980 Groups: Percentages by Basic Branch Groups

Tenure Status As Of FY86	<u>Combat Arms</u>		<u>Combat Supp.</u>		<u>C Serv Supp</u>	
	1976	1980	1976	1980	1976	1980
In Active Duty	52	64	47	62	35	59
Separate After 1-3 Years	18	14	18	15	35	20
Separate After 4-6 Years	23	21	28	23	20	22
Separate After 7-10 Years	7	--	8	--	10	--
Total %	100	99	101	100	100	101
Total Number	3070	3619	1020	1308	3418	3322

Note: Basic branch information was missing for 115 cases in the 1976 group, 5 cases in the 1980 group. The percentages are based on subtotals excluding these cases.

More detailed information on the tenure lengths of officers by individual branch is presented at Appendix B.

Tenure lengths by sex. The tenure lengths of the three entry-year groups by sex are shown on Table 11. Recall that the overall separation rate for the 1971 group within the first 6

years was extremely high (74%, Table 7). In the period of great forces reduction, there was only a slight difference between the separation rates of males and females for the first 6 years (74% vs 77%).

During the mid-70s to early-80s, although the percentages of females entering active duty increased (see Table 5), the gap between the separation rates of male and female officers also increased. The 6-year separation rate for males in the 1976 group was 47%; the rate for females was 60%. For the 1980 group, the 6-year separation rates for males and females were lower than the rates for the 1976 group. However, the female separation rate was still higher (48%) than the male rate (37%). On the other hand, it should be noted that 51% of females entering active duty in 1980 remained in service after their initial obligation period. Most of the male-female differences in separation rates was due to separations occurring in the first 3 years. After that point, the rates were strikingly similar for both the 1976 and the 1980 groups.

Table 11

Tenure Lengths of 1971, 1976 and 1980 Groups: Percentages by Sex

Tenure Status As Of FY86	<u>Male</u>			<u>Female</u>		
	1971	1976	1980	1971	1976	1980
In Active Duty	17	44	64	13	31	51
Separate After 1-3 Years	58	26	15	55	37	26
Separate After 4-6 Years	16	21	22	22	23	22
Separate After 7-10 Years	5	8	--	7	9	--
Separate After 11-15 Years	3	--	--	3	--	--
Total %	99	99	101	100	100	99
Total Number	12281	6584	6835	1082	1111	1419

Table 12 presents the breakdown of officers in each entry-year group by reasons for separation and sex. These percentages were calculated for only the officers who had separated from active duty, by entry year and sex. The reasons for separation were grouped into six categories: (1) Expiration of obligated service, (2) retirement and other non-problem separations, (3)

disabilities, (4) conflict with marriage and family responsibilities, (5) non-selection for promotion, and (6) circumstances problematic to the Army (e.g., violation of civil and military laws, homosexuality, failure to perform assigned duties).

The separation rates of male and female officers are remarkably similar for each of the reasons examined with one notable exception. Female officers separated more than male officers due to conflicts with family and marriage needs and circumstances. The percentages of female officers having separated for this reason, by FY86, differed across the year groups, 10%, 4%, and 7% for the 1971, 1976, and 1981 groups, respectively. However, the relative percentages of separation categories would shift with increasing organizational age for each entry-year group. As the proportion of separations due to retirement increases, there would be complementary decreases in the other percentages. Further longitudinal analyses are needed to determine whether the female separation rate for family and marriage reasons may be declining. Hardly any male officers separated for the reason of "marriage and family."

Table 12

Reasons for Separation for 1971, 1976 and 1980 Groups:  
Percentages by Sex

Tenure Status As Of FY86	<u>Male</u>			<u>Female</u>		
	1971	1976	1980	1971	1976	1980
Expiration of Oblig. Tour	48	43	42	54	43	49
Retirement & other	48	52	46	29	47	36
Disability	1	2	2	3	3	1
Family & Marriage	<1	0	0	10	4	7
Non Selection for Promotion	1	1	3	2	1	2
Problem Separation	1	2	7	2	1	5
Total %	100	100	100	100	99	100
Total Number	10143	3655	2478	945	761	686

Table 13

Tenure Lengths of 1971, 1976, and 1980 Entry-Year Groups by Race

Tenure Status As Of FY86	White % (Number)	Black % (Number)	Hispanic % (Number)	Other % (Number)
<u>1971 Entry-Year Group</u>				
In Active Duty	18 ( 2076)	41 ( 132)	16 ( 19)	4 ( 35)
Separate After 1-3 Years	58 ( 6770)	31 ( 100)	48 ( 56)	93 ( 829)
Separate After 4-6 Years	17 ( 2007)	17 ( 54)	22 ( 25)	2 ( 17)
Separate After 7-10 Years	4 ( 411)	4 ( 12)	3 ( 4)	1 ( 6)
Separate After 11-15 Years	3 ( 375)	8 ( 25)	10 ( 12)	<1 ( 3)
Total	100 (11639)	101( 323)	99 ( 116)	100 ( 890)
<u>1976 Entry-Year Group</u>				
In Active Duty	50 ( 2793)	58 ( 348)	49 ( 46)	48 ( 86)
Separate After 1-3 Years	14 ( 763)	16 ( 96)	11 ( 10)	23 ( 41)
Separate After 4-6 Years	27 ( 1502)	18 ( 106)	21 ( 20)	18 ( 32)
Separate After 7-10 Years	10 ( 535)	8 ( 51)	19 ( 18)	12 ( 21)
Total	101 ( 5593)	100 ( 601)	100 ( 94)	100 ( 180)
<u>1980 Entry-Year Group</u>				
In Active Duty	62 ( 4070)	61 ( 744)	71 ( 98)	60 ( 169)
Separate After 1-3 Years	15 ( 1019)	21 ( 262)	13 ( 18)	26 ( 74)
Separate After 4-6 Years	23 ( 1517)	18 ( 220)	16 ( 22)	14 ( 41)
Total	100 ( 6606)	100 (1226)	100 ( 138)	100 ( 284)

Note: Race information was missing for 396 and 1227 cases for the 1971 and 1976 groups, respectively; above percentages are based on subtotals excluding these cases.

Tenure lengths by race. The tenure lengths of the three entry-year groups by race are shown on Table 13. (The percentages refer to subgroups by entry year and race. For the 1971 group, a dramatic differences in retention rates ("In Active Duty" percentages) were found between the black officers and all other groups. Forty-one percent of black officers were still in active duty in FY86, compared to 18, 16, and 4 percent for white, Hispanic, and "other" officers, respectively. While 70% or more of "other" racial/ethnic groups separated in the first 6 years, the separation rate for the black group in the same period was 48%. Even though blacks constituted only 2% of the original entry-year group (see Table 2), their tenure pattern differed markedly from the others.

Comparing across the racial/ethnic groups of the 1976 group for percentages remaining in active duty after 10 years service, the black group still has the highest retention rate (58%). However, the differences in retention rates are much smaller than for the 1971 group. For the 1980 group, the percentages of white and black officers remaining in active duty after 6 years service are about the same.

Over the 16-year period examined, the black officer retention rate changed from being higher than the white retention rate to being about the same. There may be many factors underlying this shift. The very small group of black officers entering active duty in the early 70s may have been extremely capable as a group. Another factor may be that, in the early 70s, the Army career provided greater benefits to blacks compared to alternative careers in the civilian sector. The civilian vs military differential in terms of career opportunities for blacks may be less in the recent years. During this same period the proportion of black officers in the original entry-year groups also increased (see Table 6), approximating the black proportion in the general population. The convergence of retention rates between the white and the black officer groups may indicate that the two groups are more similar now than in early 70s with regard to the factors that affect retention.

The retention rates of Hispanic officers relative to the rates of other racial/ethnic groups have increased since early-70s. For the 1980 entry-year group, the Hispanic officers had the highest retention rate, 71% compared to 62% and 61% of whites and blacks, respectively. However, the proportion of Hispanics in the original entry-year groups has remained consistently small (1-2%, Table 6). Further longitudinal analyses are needed to assess whether the increase in the Hispanic retention rate for the early 80s group reflects any systematic change in the factors that affect retention for this group.

Table 14

Percentages of the 1971, 1976, and 1980 Entry-Year Groups by  
Tenure Lengths and Highest Rank Achieved

<u>Tenure Status</u> As Of FY86	<u>Above Major</u> % (Number)	<u>Major</u> % (Number)	<u>Captain</u> % (Number)	<u>Lieutenant</u> % (Number)
<u>1971 Entry-Year Group</u>				
In Active Duty	2 ( 308)	15 (1941)	<1 ( 13)	0 ( 0)
Separate After 1-3 Years	<1 ( 35)	8 (1110)	13 (1703)	37 (4907)
Separate After 4-6 Years	<1 ( 26)	1 ( 152)	11 (1529)	4 ( 483)
Separate After 7-10 Years	1 ( 71)	1 ( 81)	4 ( 586)	<1 ( 4)
Separate After 11-15 Years	<1 ( 56)	1 ( 100)	2 ( 259)	0 ( 0)
Subtotal	4 ( 496)	26 (3384)	30 (4090)	41 (5394)
<u>1976 Entry-Year Group</u>				
In Active Duty	1 ( 105)	5 ( 352)	37 (2814)	<1 ( 2)
Separate After 1-3 Years	<1 ( 22)	5 ( 378)	7 ( 522)	16 (1215)
Separate After 4-6 Years	<1 ( 29)	1 ( 88)	14 (1109)	6 ( 434)
Separate After 7-10 Years	<1 ( 26)	2 ( 132)	6 ( 467)	0 ( 0)
Subtotal	1 ( 182)	13 ( 950)	64 (4912)	22 (1651)
<u>1980 Entry-Year Group</u>				
In Active Duty	1 ( 79)	7 ( 606)	53 (4389)	<1 ( 7)
Separate After 1-3 Years	<1 ( 26)	1 ( 85)	4 ( 307)	12 ( 955)
Separate After 4-6 Years	<1 ( 21)	1 ( 102)	17 (1428)	3 ( 249)
Subtotal	2 ( 126)	9 ( 793)	74 (6124)	15 (1211)

Highest rank achieved. Table 14 presents the percentages of officers in each entry-year group according to the highest rank achieved to date or at the time of separation. The percentages are based on the total entry-year group for each entry year. Most of officers remaining in active duty in FY86 from the 1971 group were majors; while most of the 1976 and 1980 groups in active duty were captains after serving for 10 and 6 years, respectively. These percentages generally reflect the officer personnel management policies regarding career progresions.

Previous tables have shown repeatedly that the rates of separation in the first 6 years of active duty have declined since the early-70s (e.g., Table 7). In addition, Table 14 indicates that the number of lieutenants separating in the first 6 years has also declined. For the 1976 group, 22% of the original entry-year group separated in 6 years when in the rank of lieutenant. In contrast, 15% of the 1980 group separated within 6 years as lieutenants; 85% had achieved the rank of captain or above within 6 years. (This percentage includes Direct Appointment officers who began active duty as captains.) After 6 years of service, the number of officers still in active duty as lieutenants was negligible. Thus, in addition to a general trend toward increasing retention rate, there may be an increasing trend toward officers becoming captains in the first 6 years in the 80s.

Despite the marked decrease since the early-70s in the overall separation rate during the first 6 years (see Table 7), the percentages of officers separating as captains during the first 6 years have remained relatively stable at 21-24% across the three entry-year groups examined. This may suggest that now, compared to the 70s, there are more captains with a relatively short Army experience performing duties that were previously assigned to captains with longer Army experiences. Such changes in the officer utilization and career patterns would have further implications to many aspects of officer training and performance.

## SUMMARY AND CONCLUSIONS

### Descriptions of the Entry-year Groups

Examination of the 1971, 1976, and 1980 entry-year groups provides general descriptions of Army officers as they enter active duty. The distribution of officers by sources of commission has remained fairly stable. In the recent years, USMA, ROTC, OCS, and Direct Appointment plus Other are represented roughly by 15%, 55%, 10%, and 20% of year groups. However, the 1971 year group data suggest that the proportion of officers commissioned through Direct Appointment may increase sharply in times of military crises. In terms of initial obligated tours, the proportion of officers accessed into the



Regular Army seems to be increasing, especially those trained in the ROTC programs. For non-Regular Army accessions, 3-year obligation is most predominant. Regarding the branch assignment, the proportion assigned to Combat Arms branches has increased, while the proportion for Combat Service Support has decreased over the 16 years examined. For recent entry-year groups, the Combat Arms/Combat Support/Combat Service Support distribution, at the time of entry, is roughly 50-15-35 percents. The proportions of women and black officers have increased.

### Descriptions of Tenure Patterns

The rate of separation at expiration of obligated service seems to be declining. Conversely, officers from recent entry-year groups are continuing in active duty beyond the obligated term more than those from the early 70s. This pattern applies to officers commissioned from USMA, ROTC, and OCS. Because the largest portion of each entry-year group is accessed from ROTC, the largest portion of officers remaining in active duty also consists of ROTC graduates. The retention rates of Combat Arms and Combat Support branches were markedly higher than the rate for Combat Service Support. However, these differences seem to be diminishing; officers in recent entry-year groups assigned to Combat Service Support seem to be separating at a lower rate compared to their counterparts from earlier years.

Female officers have separated from active duty at a higher rate than male officers. In comparison of reasons for separation for male and female officers, the only notable difference was that some females separated due to marriage and family demands, while hardly any males did. However, for more recent year groups, more than one-half of female officers are continuing in active duty beyond the obligated tours.

Larger proportion of black officers from the 1971 entry-year group remained in active duty over the 16 subsequent years than officers in other racial/ethnic groups. However, the retention rates of black and white officers for more recent entry-year groups are converging, and the rate for Hispanic officers may be rising. These data show that officers from "non-traditional, minority" groups are providing necessary manpower resources for the Army officer corps.

### Conclusions

Analyses presented in this report were designed to provide basic descriptions of the Army officer corps--attributes that remain stable and those that may shift across time. These descriptions do not translate directly to methods of enhancing officer development and utilization. Instead, they serve to identify or confirm key issues pertinent to officer training, e.g., the critical importance of ensuring high quality ROTC

training. The descriptions also highlight issues relevant to the development of measures and procedures to assess officer development. For example, in the recent years, officers with relatively short Army experiences may be performing captain's duties more than in earlier periods. Thus, earlier promotion to captain may represent both an indicator of job performance and also a challenging developmental condition.

Finally, these analyses provided an occasion to test the usefulness of the OLRDB. Most of the basic demographic data were remarkably complete. The next analytic phase of the Leader Development Analysis Project will expand the test to include officer assignment, promotion histories, and training performance data from the data base.

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APPENDIX A

SAS Program for Recoding Officer Master File Variable Codes

```

//KFDHUNT JOB (WRZ1,860,C,,500),HUNTER-RL'
//ROUTE XEQ MSS
//XITLE RECODE COMM8485
//XUN
//PROCLIB DD DSN=ZABCRUN.PROCLIB,DISP=SHR
//STEP1 EXEC SAS516
//SAS1 DD DSN='WRZ1KFD.COMM8485',UNIT=MSS,DISP=OLD
//SAS2 DD DSN='WRZ1KFD.X',UNIT=FILE,VOL=SER=TMP002,
//SPACE=(CYL,(5,5),RLSE),DISP=(NEW,KEEP)
//SASLIB DD DSN='WRZ1KFD.OLDRDB.FMTS',UNIT=MSS,DISP=SHR
//SYSIN DD *
OPTIONS ERRORABEND NOCENTER;
DATA SAS2.X;SET SAS1.COMM8485;
* THIS STEP REGROUPS SPD (REASONS FOR SEPARATION)
INTO 6 CATEGORIES.
1=EXPIRATION OF TERM, 2=PROBLEM SEPARATION,
3=DISABILITY, 4=FAMILY/MARRIAGE,
5=RETIREMENT & OTHER NON-PROBLEM SEPARATION,
6=OTHER.;
IF SPD = ' ' THEN SPDRC = ' ';
ELSE IF
SPD= '611' OR SPD= '612' OR SPD= '502' OR
SPD= '648' OR SPD= '655' OR SPD= 'LGJ' OR
SPD= 'MBK' OR SPD= 'MCF' OR SPD= 'MCG' OR
SPD= 'LBK' OR SPD= 'JBK' OR SPD= 'VBK' THEN SPDRC='1';
ELSE IF
SPD= 'JHF' OR SPD= 'JDK' OR SPD= 'JHK' OR
SPD= 'JRA' OR SPD= 'JRB' OR SPD= 'JNC' OR
SPD= 'KHK' OR SPD= 'KNC' OR SPD= 'LHH' OR
SPD= 'KJB' OR SPD= 'KJD' OR SPD= 'PKB' OR
SPD= 'PKF' OR SPD= 'JRC' OR SPD= 'JKB' OR
SPD= 'JFF' OR SPD= 'JPC' OR SPD= 'JJK' OR
SPD= 'JPD' OR SPD= 'JKL' OR SPD= 'JDL' OR
SPD= 'LDL' OR SPD= 'JCM' OR SPD= 'KCM' OR
SPD= 'JHJ' OR SPD= 'JKJ' OR SPD= 'JFX' OR
SPD= 'JMB' OR SPD= 'JKN' OR SPD= 'JKF' OR
SPD= 'JKN' OR SPD= 'JKE' OR SPD= 'JKQ' OR
SPD= 'JKH' OR SPD= 'JFG' OR SPD= 'JFS' OR
SPD= 'JJC' OR SPD= 'JJD' OR SPD= 'KFS' OR
SPD= 'JES' OR SPD= 'KCL' OR SPD= 'LKJ' OR
SPD= 'LMJ' OR SPD= 'SHK' OR SPD= 'SNC' OR
SPD= 'VHF' OR SPD= 'RNC' OR SPD= 'RBB' OR
SPD= 'RRA' OR SPD= 'BKC' OR SPD= 'RRB' OR
SPD= 'RRC' OR SPD= 'RHK' OR SPD= 'BDK' OR
SPD= 'BFS' OR SPD= 'BRA' OR SPD= 'BHK' OR
SPD= 'BRB' OR SPD= 'BHC' OR SPD= 'DFS' OR
SPD= 'FHG' OR SPD= 'BRC' OR SPD= '505' OR
SPD= '514' OR SPD= '509' OR SPD= '510' OR
SPD= '511' OR SPD= '512' OR SPD= '513' OR
SPD= '518' OR SPD= '522' OR SPD= '536' OR
SPD= '537' OR SPD= '586' OR SPD= '587' OR
SPD= '588' OR SPD= '589' OR SPD= '625' OR
SPD= '645' OR SPD= '649' OR SPD= '555' OR
SPD= '556' OR SPD= '558' OR SPD= '590' OR
SPD= '640' THEN SPDRC = '2';
ELSE IF
SPD= 'SFJ' OR SPD= 'WJF' OR SPD= 'WFQ' OR
SPD= 'SFK' OR SPD= 'WFK' OR SPD= 'KFN' OR
SPD= 'WFJ' OR SPD= '77M' OR SPD= '77N' OR
SPD= '77Q' OR SPD= '77R' OR SPD= '78A' OR
SPD= '77T' OR SPD= '77U' OR SPD= '77V' OR
SPD= '77W' OR SPD= '77X' OR SPD= '77Y' OR
SPD= '77Z' OR SPD= '77AA' OR SPD= '77AB' OR
SPD= '77AC' OR SPD= '77AD' OR SPD= '77AE' OR
SPD= '77AF' OR SPD= '77AG' OR SPD= '77AH' OR
SPD= '77AI' OR SPD= '77AJ' OR SPD= '77AK' OR
SPD= '77AL' OR SPD= '77AM' OR SPD= '77AN' OR
SPD= '77AO' OR SPD= '77AP' OR SPD= '77AQ' OR
SPD= '77AR' OR SPD= '77AS' OR SPD= '77AT' OR
SPD= '77AU' OR SPD= '77AV' OR SPD= '77AW' OR
SPD= '77AX' OR SPD= '77AY' OR SPD= '77AZ' OR
SPD= '77BA' OR SPD= '77BB' OR SPD= '77BC' OR
SPD= '77BD' OR SPD= '77BE' OR SPD= '77BF' OR
SPD= '77BG' OR SPD= '77BH' OR SPD= '77BI' OR
SPD= '77BJ' OR SPD= '77BK' OR SPD= '77BL' OR
SPD= '77BM' OR SPD= '77BN' OR SPD= '77BO' OR
SPD= '77BP' OR SPD= '77BQ' OR SPD= '77BR' OR
SPD= '77BS' OR SPD= '77BT' OR SPD= '77BU' OR
SPD= '77BV' OR SPD= '77BW' OR SPD= '77BX' OR
SPD= '77BY' OR SPD= '77BZ' OR SPD= '77CA' OR
SPD= '77CB' OR SPD= '77CC' OR SPD= '77CD' OR
SPD= '77CE' OR SPD= '77CF' OR SPD= '77CG' OR
SPD= '77CH' OR SPD= '77CI' OR SPD= '77CJ' OR
SPD= '77CK' OR SPD= '77CL' OR SPD= '77CM' OR
SPD= '77CN' OR SPD= '77CO' OR SPD= '77CP' OR
SPD= '77CQ' OR SPD= '77CR' OR SPD= '77CS' OR
SPD= '77CT' OR SPD= '77CU' OR SPD= '77CV' OR
SPD= '77CW' OR SPD= '77CX' OR SPD= '77CY' OR
SPD= '77CZ' OR SPD= '77DA' OR SPD= '77DB' OR
SPD= '77DC' OR SPD= '77DD' OR SPD= '77DE' OR
SPD= '77DF' OR SPD= '77DG' OR SPD= '77DH' OR
SPD= '77DI' OR SPD= '77DJ' OR SPD= '77DK' OR
SPD= '77DL' OR SPD= '77DM' OR SPD= '77DN' OR
SPD= '77DO' OR SPD= '77DP' OR SPD= '77DQ' OR
SPD= '77DR' OR SPD= '77DS' OR SPD= '77DT' OR
SPD= '77DU' OR SPD= '77DV' OR SPD= '77DW' OR
SPD= '77DX' OR SPD= '77DY' OR SPD= '77DZ' OR
SPD= '77EA' OR SPD= '77EB' OR SPD= '77EC' OR
SPD= '77ED' OR SPD= '77EE' OR SPD= '77EF' OR
SPD= '77EG' OR SPD= '77EH' OR SPD= '77EI' OR
SPD= '77EJ' OR SPD= '77EK' OR SPD= '77EL' OR
SPD= '77EM' OR SPD= '77EN' OR SPD= '77EO' OR
SPD= '77EP' OR SPD= '77EQ' OR SPD= '77ER' OR
SPD= '77ES' OR SPD= '77ET' OR SPD= '77EU' OR
SPD= '77EV' OR SPD= '77EW' OR SPD= '77EX' OR
SPD= '77EY' OR SPD= '77EZ' OR SPD= '77FA' OR
SPD= '77FB' OR SPD= '77FC' OR SPD= '77FD' OR
SPD= '77FE' OR SPD= '77FF' OR SPD= '77FG' OR
SPD= '77FH' OR SPD= '77FI' OR SPD= '77FJ' OR
SPD= '77FK' OR SPD= '77FL' OR SPD= '77FM' OR
SPD= '77FN' OR SPD= '77FO' OR SPD= '77FP' OR
SPD= '77FQ' OR SPD= '77FR' OR SPD= '77FS' OR
SPD= '77FT' OR SPD= '77FU' OR SPD= '77FV' OR
SPD= '77FW' OR SPD= '77FX' OR SPD= '77FY' OR
SPD= '77FZ' OR SPD= '77GA' OR SPD= '77GB' OR
SPD= '77GC' OR SPD= '77GD' OR SPD= '77GE' OR
SPD= '77GF' OR SPD= '77GG' OR SPD= '77GH' OR
SPD= '77GI' OR SPD= '77GJ' OR SPD= '77GK' OR
SPD= '77GL' OR SPD= '77GM' OR SPD= '77GN' OR
SPD= '77GO' OR SPD= '77GP' OR SPD= '77GQ' OR
SPD= '77GR' OR SPD= '77GS' OR SPD= '77GT' OR
SPD= '77GU' OR SPD= '77GV' OR SPD= '77GW' OR
SPD= '77GX' OR SPD= '77GY' OR SPD= '77GZ' OR
SPD= '77HA' OR SPD= '77HB' OR SPD= '77HC' OR
SPD= '77HD' OR SPD= '77HE' OR SPD= '77HF' OR
SPD= '77HG' OR SPD= '77HH' OR SPD= '77HI' OR
SPD= '77HJ' OR SPD= '77HK' OR SPD= '77HL' OR
SPD= '77HM' OR SPD= '77HN' OR SPD= '77HO' OR
SPD= '77HP' OR SPD= '77HQ' OR SPD= '77HR' OR
SPD= '77HS' OR SPD= '77HT' OR SPD= '77HU' OR
SPD= '77HV' OR SPD= '77HW' OR SPD= '77HX' OR
SPD= '77HY' OR SPD= '77HZ' OR SPD= '77IA' OR
SPD= '77IB' OR SPD= '77IC' OR SPD= '77ID' OR
SPD= '77IE' OR SPD= '77IF' OR SPD= '77IG' OR
SPD= '77IH' OR SPD= '77IJ' OR SPD= '77IK' OR
SPD= '77IL' OR SPD= '77IM' OR SPD= '77IN' OR
SPD= '77IO' OR SPD= '77IP' OR SPD= '77IQ' OR
SPD= '77IR' OR SPD= '77IS' OR SPD= '77IT' OR
SPD= '77IU' OR SPD= '77IV' OR SPD= '77IW' OR
SPD= '77IX' OR SPD= '77IY' OR SPD= '77IZ' OR
SPD= '77JA' OR SPD= '77JB' OR SPD= '77JC' OR
SPD= '77JD' OR SPD= '77JE' OR SPD= '77JF' OR
SPD= '77JG' OR SPD= '77JH' OR SPD= '77JI' OR
SPD= '77JJ' OR SPD= '77JK' OR SPD= '77JL' OR
SPD= '77JM' OR SPD= '77JN' OR SPD= '77JO' OR
SPD= '77JP' OR SPD= '77JQ' OR SPD= '77JR' OR
SPD= '77JS' OR SPD= '77JT' OR SPD= '77JU' OR
SPD= '77JV' OR SPD= '77JW' OR SPD= '77JX' OR
SPD= '77JY' OR SPD= '77JZ' OR SPD= '77KA' OR
SPD= '77KB' OR SPD= '77KC' OR SPD= '77KD' OR
SPD= '77KE' OR SPD= '77KF' OR SPD= '77KG' OR
SPD= '77KH' OR SPD= '77KI' OR SPD= '77KJ' OR
SPD= '77KK' OR SPD= '77KL' OR SPD= '77KM' OR
SPD= '77KN' OR SPD= '77KO' OR SPD= '77KP' OR
SPD= '77KQ' OR SPD= '77KR' OR SPD= '77KS' OR
SPD= '77KT' OR SPD= '77KU' OR SPD= '77KV' OR
SPD= '77KW' OR SPD= '77KX' OR SPD= '77KY' OR
SPD= '77KZ' OR SPD= '77LA' OR SPD= '77LB' OR
SPD= '77LC' OR SPD= '77LD' OR SPD= '77LE' OR
SPD= '77LF' OR SPD= '77LG' OR SPD= '77LH' OR
SPD= '77LI' OR SPD= '77LJ' OR SPD= '77LK' OR
SPD= '77LL' OR SPD= '77LM' OR SPD= '77LN' OR
SPD= '77LO' OR SPD= '77LP' OR SPD= '77LQ' OR
SPD= '77LR' OR SPD= '77LS' OR SPD= '77LT' OR
SPD= '77LU' OR SPD= '77LV' OR SPD= '77LW' OR
SPD= '77LX' OR SPD= '77LY' OR SPD= '77LZ' OR
SPD= '77MA' OR SPD= '77MB' OR SPD= '77MC' OR
SPD= '77MD' OR SPD= '77ME' OR SPD= '77MF' OR
SPD= '77MG' OR SPD= '77MH' OR SPD= '77MI' OR
SPD= '77MJ' OR SPD= '77
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SPD= '788' OR SPD= '660' OR SPD= '650' OR
SPD= '657' OR SPD= '659' OR SPD= '661' OR
SPD= '662' OR SPD= '663' THEN SPDR = '3';
ELSE IF
SPD= '528' OR SPD= '529' OR SPD= '530' OR
SPD= '595' OR SPD= '596' OR SPD= '610' OR
SPD= 'FDF' OR SPD= 'JOG' OR SPD= 'JGA' OR
SPD= 'JET' OR SPD= 'KCG' OR SPD= 'KDG' OR
SPD= 'KDF' OR SPD= 'LDG' OR SPD= 'LGA' OR
SPD= 'LET' OR SPD= 'MDF' OR SPD= 'MCQ' OR
SPD= 'MDH' OR SPD= 'MDG' THEN SPDR = '4';
ELSE IF
SPD= '631' OR SPD= '632' OR SPD= '633' OR
SPD= 'LGB' OR SPD= 'LGC' OR SPD= 'LHH' OR
SPD= 'SGB' THEN SPDR = '5';
ELSE
THE FOLLOWING STEP RECODES REDCAT (RACIAL/ETHNIC
CATEGORIES) INTO 4 CATEGORIES.
1=WHITE, 2=BLACK,
3=HISPANIC, 4=OTHER;
IF REDCAT = '1' THEN RACRC = '1';
ELSE IF REDCAT = 'C' THEN RACRC = '1';
ELSE IF REDCAT = 'N' THEN RACRC = '2';
ELSE IF REDCAT = 'H' THEN RACRC = '3';
ELSE
THE FOLLOWING STEP RECODES CPPN (CURRENT PROCUREMENT
CODE) INTO 12 CATEGORIES INDICATING SOURCE OF
COMMISSION AND LENGTH OF CURRENT OBLIGATION.
01=REGULAR ARMY (RA), US MIL ACADEMY
02=RA, ROTC 03=RA, OCS
04=NON-RA, 4YRS, ROTC
05=NON-RA, 4YRS, ROTC SCHOLARSHIP
06=NON-RA, 3YRS, ROTC
08=6 MONTH ACTIVE DUTY FOR TRAINING, ROTC
09=NON-RA, 3YRS, OCS
11=NON-RA, 6MONTH TRAINING, OCS
12=OTHER;
IF CPPN = 'A1' OR
CPPN = 'D1' THEN OBLIG = '01';
ELSE IF
CPPN = 'B1' OR
CPPN = 'B2' OR
CPPN = 'B5' OR
CPPN = 'B6' OR
CPPN = 'B8' OR
CPPN = 'B9' OR
CPPN = 'BA' OR
CPPN = 'BB' OR
CPPN = 'D2' OR
CPPN = 'DB' THEN OBLIG = '02';
ELSE IF
CPPN = 'D3' OR
CPPN = 'E1' THEN OBLIG = '03';
ELSE IF
CPPN = 'U4' OR
CPPN = 'U5' THEN OBLIG = '04';
ELSE IF
CPPN = 'U8' OR
CPPN = 'U9' THEN OBLIG = '05';
ELSE IF

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CPPN = 'S1' OR
CPPN = 'S6' OR
CPPN = 'SA' OR
CPPN = 'SF' OR
CPPN = 'SH' OR
CPPN = 'SJ' OR
CPPN = 'SL' OR
CPPN = 'SM' OR
CPPN = 'SN' OR
CPPN = 'S2' OR
CPPN = 'S5' OR
CPPN = 'SB' OR
CPPN = 'SE' OR
CPPN = 'SG' THEN OBLIG = '06';
ELSE IF
CPPN = 'S2' OR
CPPN = 'S5' OR
CPPN = 'SB' OR
CPPN = 'SE' OR
CPPN = 'SG' THEN OBLIG = '07';
ELSE IF
CPPN = 'S3' OR
CPPN = 'S4' OR
CPPN = 'SC' OR
CPPN = 'SD' THEN OBLIG = '08';
ELSE IF
CPPN = 'SK' OR
CPPN = 'U2' THEN OBLIG = '09';
ELSE IF
CPPN = 'S7' OR
CPPN = 'U1' OR
CPPN = 'U7' THEN OBLIG = '10';
ELSE IF
CPPN = 'S8' OR
CPPN = 'S9' THEN OBLIG = '11';
ELSE IF CPPN = ' ' THEN OBLIG = ' '
ELSE OBLIG = '12';
* THE FOLLOWING STEP RECODES PPPN (PREVIOUS PROCUREMENT
CODE) INTO THE SAME GROUPINGS AS CPPN ABOVE.;
IF PPPN = 'A1' OR
PPPN = 'D1' THEN POBLIG = '01';
ELSE IF
PPPN = 'B1' OR
PPPN = 'B2' OR
PPPN = 'B5' OR
PPPN = 'B6' OR
PPPN = 'B8' OR
PPPN = 'B9' OR
PPPN = 'BA' OR
PPPN = 'BB' OR
PPPN = 'D2' OR
PPPN = 'DB' THEN POBLIG = '02';
ELSE IF
PPPN = 'D3' OR
PPPN = 'E1' THEN POBLIG = '03';
ELSE IF
PPPN = 'U4' OR
PPPN = 'U5' THEN POBLIG = '04';
ELSE IF
PPPN = 'U8' OR

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PPPN = 'U9' THEN PUBLIG = '05';
ELSE IF
  PPPN = 'S1' OR
  PPPN = 'S6' OR
  PPPN = 'SA' OR
  PPPN = 'SF' OR
  PPPN = 'SH' OR
  PPPN = 'SJ' OR
  PPPN = 'SL' OR
  PPPN = 'SM' OR
  PPPN = 'SN' OR
  PPPN = 'S2' OR
  PPPN = 'S5' OR
  PPPN = 'SB' OR
  PPPN = 'SE' OR
  PPPN = 'SG' THEN PUBLIG = '06';
ELSE IF
  PPPN = 'S2' OR
  PPPN = 'S5' OR
  PPPN = 'SB' OR
  PPPN = 'SE' OR
  PPPN = 'SG' THEN PUBLIG = '07';
ELSE IF
  PPPN = 'S3' OR
  PPPN = 'S4' OR
  PPPN = 'SC' OR
  PPPN = 'SD' THEN PUBLIG = '08';
ELSE IF
  PPPN = 'SK' OR
  PPPN = 'U2' THEN PUBLIG = '09';
ELSE IF
  PPPN = 'S7' OR
  PPPN = 'U1' OR
  PPPN = 'U7' THEN PUBLIG = '10';
ELSE IF
  PPPN = 'S8' OR
  PPPN = 'S9' THEN PUBLIG = '11';
ELSE IF PPPN = ' ' THEN PUBLIG = ' '
  PUBLIG = '12';
ELSE
  * THE FOLLOWING STEP RECODES SOC (SOURCE OF COMMISSION)
  INTO 5 CATEGORIES.
  WP=US MILITARY ACADEMY
  RO=ROTC
  OC=OCS
  DA=DIRECT APPOINTMENT
  OT=OTHER;
  IF SOC = ' ' THEN SOCRC = ' ';
  ELSE IF SOC = 'A' THEN SOCRC = 'WP';
  ELSE IF SOC = 'B' OR SOC = 'C' OR SOC = '2' OR SOC = '3'
    THEN SOCRC = 'RO';
  ELSE IF SOC = 'D' OR SOC = 'E' OR SOC = '4' OR SOC = '5' OR
    SOC = '6' THEN SOCRC = 'OC';
  ELSE IF SOC = 'C' THEN SOCRC = 'DA';
  ELSE SOCRC = 'OT';
  * THE FOLLOWING STEP TAKES OBLIG (SOURCE OF COMMISSION,
  TYPE & LENGTH OF OBLIGATION) CREATED IN THE DATA STEP
  ABOVE AND FURTHER RECODES IT INTO 5 CATEGORIES OF
  JUST THE LENGTH OF OBLIGATION.
  1= REGULAR ARMY
  2=4 YRS
  3=3 YRS
  4=2 YRS
  5=OTHER;
  DATA Y;SET SAS2.X;

```



```

IF OBLIG = ' ' THEN OBLIGRC = ' '
ELSE IF OBLIG = '01' OR
      OBLIG = '02' OR
      OBLIG = '03' THEN OBLIGRC = '1'
ELSE IF OBLIG = '04' OR
      OBLIG = '05' THEN OBLIGRC = '2'
ELSE IF OBLIG = '06' OR
      OBLIG = '09' THEN OBLIGRC = '3'
ELSE IF OBLIG = '07' OR
      OBLIG = '10' THEN OBLIGRC = '4'
ELSE
      OBLIGRC = '5'
*
THE FOLLOWING STEP RECODES BABR (BASIC BRANCH) SO
THAT THE MEDICAL AND VERY SMALL BRANCHES ARE GROUPED
TOGETHER.
AD=AIR DEFENSE
AN=ARMY NURSE
AV=AVIATION
CM=CHEMICAL
FA=FIELD ARTILRY
IN=INFANTRY
MI=MIL INTELL
OD=ORDNANCE
SC=SIGNAL
OT=OTHER
AG=ADJ GEN
AR=ARMOR
CH=CHAPLAIN
EN=ENGINEER
FI=FINANCE
JA=JUDGE ADV
MP=MIL POLICE
QM=QUARTERMASTER
TC=TRANSPORTATION
MD=MEDICAL;
IF BABR='AD' THEN BRANCH='AD';
IF BABR='AG' THEN BRANCH='AG';
IF BABR='AN' THEN BRANCH='AN';
IF BABR='AR' THEN BRANCH='AR';
IF BABR='AV' THEN BRANCH='AV';
IF BABR='CH' THEN BRANCH='CH';
IF BABR='CM' THEN BRANCH='CM';
IF BABR='EN' THEN BRANCH='EN';
IF BABR='FA' THEN BRANCH='FA';
IF BABR='FI' THEN BRANCH='FI';
IF BABR='IN' THEN BRANCH='IN';
IF BABR='JA' THEN BRANCH='JA';
IF BABR='MI' THEN BRANCH='MI';
IF BABR='MP' THEN BRANCH='MP';
IF BABR='OD' THEN BRANCH='OD';
IF BABR='QM' THEN BRANCH='QM';
IF BABR='SC' THEN BRANCH='SC';
IF BABR='TC' THEN BRANCH='TC';
IF BABR='CA' OR
  BABR='PR' OR
  BABR='SS' OR
  BABR='WC' THEN BRANCH='OT';
IF BABR='DE' OR
  BABR='MC' OR
  BABR='MS' OR
  BABR='SP' OR
  BABR='VC' THEN BRANCH='MD';
IF BABR=' ' THEN BRANCH=' ';
*
THE FOLLOWING DATA STEP TAKES THE DATA SET CREATED THUS
FAR, CREATE A TEMPORARY DATA SET Z WITH ONLY MATCHCODE AND
PPPN, AND RENAMES PPPN AS CPPN. THIS IS TO DERIVE THE
ORIGINAL PROCUREMENT CODE FOR OFFICERS WHOSE CURRENT
PROCUREMENT CODE IS NOT THE ORIGINAL CODE.;
DATA Z; SET Y; IF PPPN NE ' ';
KEEP MATCHCOD PPPN;
RENAME PPPN=CPPN;

```

```

PROC SORT DATA=Z;BY MATCHCOD;
* THE FOLLOWING STEP CREATES A TEMPORARY DATA SET COMM8485
  WHICH IS IDENTICAL TO THE DATA SET Y ABOVE WITH ALL
  THE RECODED VARIABLES.;
DATA COMM8485;SET Y;
* THE FOLLOWING STEP TAKES THE DATA SET Z IN WHICH PPPN
  HAS BEEN RENAMED AS CPPN AND WRITES OVER THE VALUE FOR
  CPPN BY THE PPPN VALUES ONLY FOR OFFICERS WHOSE INITIAL
  OBLIGATION CHANGED TO PPPN. THEN IT RENAMES CPPN IN THE
  TEMPORARY DATA SET COMM8485 AS INITOBL. A NEW DATA SET
  CALLED UPDATE IS CREATED.;
DATA UPDATE;
UPDATE COMM8485 (KEEP=MATCHCOD CPPN) Z;BY MATCHCOD;
RENAME CPPN=INITOBL;
PROC SORT DATA=UPDATE;BY MATCHCOD;
* THE FOLLOWING STEP TAKES COMM8485 (WITH ALL RECODED
  VARIABLES. CPPN. AND PPPN). MERGES IT WITH DATA SET
  UPDATE (WITH IOBLIG WHICH IS INDICATES ORIGINAL
  OBLIGATION, EITHER FROM CPPN OR PPPN) AND FURTHER RECODES
  IOBLIG CODES (WHICH ARE COMPARABLE TO CPPN AND PPPN CODES)
  INTO 12 CATEGORIES OF IOBLIG (INITIAL OBLIGATION, SOURCE
  OF COMMISSION, TYPE OF SERVICE). A NEW DATA SET TEMP1 IS
  CREATED.;
DATA TEMP1;MERGE COMM8485 UPDATE;BY MATCHCOD;
IF INITOBL = 'A1' OR
ELSE IF INITOBL = 'D1' THEN IOBLIG = '01';
ELSE IF
INITOBL = 'B1' OR
INITOBL = 'B2' OR
INITOBL = 'B5' OR
INITOBL = 'B6' OR
INITOBL = 'B8' OR
INITOBL = 'B9' OR
INITOBL = 'BA' OR
INITOBL = 'BB' OR
INITOBL = 'D2' OR
INITOBL = 'DB' THEN IOBLIG = '02';
ELSE IF
INITOBL = 'D3' OR
INITOBL = 'E1' THEN IOBLIG = '03';
ELSE IF
INITOBL = 'U4' OR
INITOBL = 'U5' THEN IOBLIG = '04';
ELSE IF
INITOBL = 'U8' OR
INITOBL = 'U9' THEN IOBLIG = '05';
ELSE IF
INITOBL = 'S1' OR
INITOBL = 'S6' OR
INITOBL = 'SA' OR
INITOBL = 'SF' OR
INITOBL = 'SH' OR
INITOBL = 'SJ' OR
INITOBL = 'SL' OR
INITOBL = 'SM' OR
INITOBL = 'SN' OR
INITOBL = 'S2' OR
INITOBL = 'S5' OR
INITOBL = 'SB' OR
INITOBL = 'SE' OR

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INITOBL = 'SG' THEN IOBLIG = '06';
ELSE IF
  INITOBL = 'S2' OR
  INITOBL = 'S5' OR
  INITOBL = 'S8' OR
  INITOBL = 'SE' OR
  INITOBL = 'SG' THEN IOBLIG = '07';
ELSE IF
  INITOBL = 'S3' OR
  INITOBL = 'S4' OR
  INITOBL = 'SC' OR
  INITOBL = 'SD' THEN IOBLIG = '08';
ELSE IF
  INITOBL = 'SK' OR
  INITOBL = 'U2' THEN IOBLIG = '09';
ELSE IF
  INITOBL = 'S7' OR
  INITOBL = 'U1' OR
  INITOBL = 'U7' THEN IOBLIG = '10';
ELSE IF
  INITOBL = 'S8' OR
  INITOBL = 'S9' THEN IOBLIG = '11';
ELSE IF INITOBL = ' ' THEN IOBLIG = ' ' ;
ELSE
  IOBLIG = '12';
ATA TEMP2; SET TEMP1;
IF IOBLIG = ' ' THEN IOBLIGRC = '1';
ELSE IF IOBLIG = '01' OR
  IOBLIG = '02' OR
  IOBLIG = '03' THEN IOBLIGRC = '1';
ELSE IF IOBLIG = '04' OR
  IOBLIG = '05' THEN IOBLIGRC = '2';
ELSE IF IOBLIG = '06' OR
  IOBLIG = '09' THEN IOBLIGRC = '3';
ELSE IF IOBLIG = '07' OR
  IOBLIG = '10' THEN IOBLIGRC = '4';
ELSE
  IOBLIGRC = '5';
THE FOLLOWING STEP ASSIGNS TO THE NEW VARIABLES
FORMATS STORED IN A SAS FORMAT LIBRARY.;
ORMAT IOBLIGRC $OBLIGRC.;
ORMAT IOBLIG $OBLIGFM.;
ORMAT SPDRC $SPDRC.;
ORMAT RACERC $RACERC.;
ORMAT OBLIGRC $OBLIGRC.;
ORMAT BRANCH $BRANCH.;
ORMAT OBLIG $OBLIG.;
ORMAT SCCR $SCRCFM.;
ORMAT CPN $PPN.;
INITOBL $PPN.;
THE FOLLOWING STEP LABELS ALL NEW VARIABLES.;
ABEL
INITOBL = 'INITL OBLIG/PROCURE CODE CPN OR PPN'
OBLIG = 'INITIAL OBLIGATION BY COMMISS SOURCE'
IOBLIGRC = 'LENGTH OF INITIAL OBLIGATION'
IOBLIG = 'OBLIG GROUPED BY LENGTH OF OBLIGATION'
IOBLIG = 'CPN GROUPED BY COMMISS SOURCE & OBL LENGTH'
IOBLIG = 'PPN GROUPED BY COMMISS SOURCE & OBL LENGTH'
BRANCH = 'COMBINED BRANCH CODE'
RACERC = 'COMBINED RACE/ETHNIC CATEGORIES'

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```
SOCRC='COMBINED SOURCE OF COMMISSION CODES';  
* THE FOLLOWING STEP SORTS THE DATA SET TEMP2 BY MATCHCOD,  
  OUTPUTS A PERMANENT DATA SET COMM8485 TO BE STORED IN  
  MSS, PRINTS SEVERAL VARIABLE VALUES FOR 50 RECORDS, AND  
  PRINTS OUT THE LIST OF CONTENTS IN THE NEW COMM8485 DATA  
  SET.;  
PROC SORT DATA=TEMP2 OUT=SAS1.COMM8485; BY MATCHCOD;  
PROC PRINT DATA=SAS1.COMM8485 (OBS=50); VAR IOBLIG INITOBL CPPN PPNP SOCRC;  
PROC CONTENTS DATA=SAS1.COMM8485;  
/*
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# APPENDIX B

## Tenure Lengths of 1976 and 1980 Entry-Year Groups by Basic Branches as of FY86

Basic Branch	In Active Duty % (Number)	Separate After		
		1-3 Years % (Number)	4-6 Years % (Number)	7-10 Years % (Number)
<u>1976 Entry-Year Group</u>				
<u>Combat Arms</u>				
Air Def. Art.	44 ( 134)	22 ( 67)	29 ( 87)	5 ( 14)
Armor	49 ( 279)	22 ( 126)	22 ( 126)	7 ( 39)
Aviation	91 ( 248)	0 ( 0)	0 ( 0)	9 ( 25)
Engineer	34 ( 144)	27 ( 114)	32 ( 135)	6 ( 25)
Field Artlry	46 ( 298)	19 ( 126)	27 ( 176)	8 ( 52)
Infantry	57 ( 489)	15 ( 129)	21 ( 177)	7 ( 60)
<u>Combat Support</u>				
Chemical	47 ( 44)	17 ( 16)	28 ( 26)	9 ( 8)
Mil. Intell.	53 ( 175)	17 ( 58)	23 ( 75)	8 ( 25)
Mil. Police	41 ( 75)	25 ( 46)	28 ( 51)	7 ( 13)
Signal	45 ( 183)	15 ( 63)	32 ( 129)	8 ( 33)
<u>C. Serv. Supp.</u>				
Adj. General	46 ( 138)	21 ( 64)	23 ( 70)	10 ( 30)
Army Nurse C.	35 ( 178)	32 ( 160)	24 ( 120)	9 ( 46)
Chaplain	67 ( 82)	10 ( 12)	6 ( 7)	17 ( 21)
Finance	48 ( 61)	24 ( 30)	23 ( 29)	6 ( 7)
Judge Advocate	39 ( 69)	34 ( 60)	22 ( 40)	6 ( 10)
Medical	25 ( 393)	48 ( 760)	16 ( 258)	10 ( 165)
Ordnance	44 ( 105)	20 ( 47)	26 ( 63)	10 ( 24)
Quartermaster	50 ( 95)	21 ( 39)	20 ( 38)	9 ( 17)
Transportation	46 ( 83)	18 ( 33)	29 ( 53)	6 ( 11)
Other	0 ( 0)	100 ( 72)	0 ( 0)	0 ( 0)

(Appendix B continued.)

(Appendix B continued.)

Basic Branch	In Active Duty % (Number)	Separate After	
		1-3 Years % (Number)	4-6 Years % (Number)
1980 Entry-Year Group			
<u>Combat Arms</u>			
Air Def. Art.	53 ( 175)	19 ( 64)	28 ( 92)
Armor	65 ( 319)	17 ( 85)	18 ( 88)
Aviation	82 ( 448)	<1 ( 1)	18 ( 99)
Engineer	58 ( 275)	14 ( 67)	28 ( 131)
Field Artlry	58 ( 483)	21 ( 172)	21 ( 176)
Infantry	66 ( 624)	14 ( 134)	20 ( 186)
<u>Combat Support</u>			
Chemical	71 ( 99)	12 ( 16)	17 ( 24)
Mil. Intell.	64 ( 279)	14 ( 60)	22 ( 94)
Mil. Police	64 ( 138)	14 ( 31)	21 ( 46)
Signal	57 ( 297)	17 ( 90)	26 ( 134)
<u>C. Serv. Supp.</u>			
Adj. General	66 ( 244)	11 ( 40)	23 ( 85)
Army Nurse C.	52 ( 198)	31 ( 119)	17 ( 65)
Chaplain	83 ( 71)	10 ( 9)	7 ( 6)
Finance	61 ( 66)	11 ( 12)	28 ( 31)
Judge Advocate	27 ( 60)	40 ( 89)	34 ( 76)
Medical	60 ( 819)	19 ( 264)	20 ( 276)
Ordnance	57 ( 197)	15 ( 52)	28 ( 98)
Quartermaster	63 ( 187)	16 ( 48)	21 ( 64)
Transportation	70 ( 102)	10 ( 15)	20 ( 29)
Other	--	--	--

Note: Percentages are calculated for each branch and year group. They total to 100 across each row. There were 115 and 5 cases with missing data for 1976 and 1980, respectively. They were excluded from this analysis.

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